REMARKS

The last Office Action has been carefully considered.

It is noted that claims 1, 2 and 4-8 are rejected under 35 U.S.C. 103(a) over Applicant Admitted Prior Art in view of JP patent application publication to Eshita.

Claims 3 and 9 are rejected under 35 U.S.C. 103(a) over applicant's admitted prior art in view of the Eshita reference and further in view of the U.S. patent to Balstrom.

Also, claim 3 is objected to and claims 4 and 5 are rejected under 35 U.S.C. 112.

In connection with the Examiner's formal objections and rejections, claim 1, into which claim 3 has been introduced, has been drafted as suggested by the Examiner to define "a focal".

Claim 4 has been amended as well to define "an output signal of the comparator.

It is believed that claim 4 in its original form was clear in that a comparator 10 has an input supplied with a transducer output signal, and it also has an output signal based on which the receiver unit determines a piece of information... However, in the article "the" has been used for an output signal of the comparator, while the article "an" has to be used because of antecedent basis considerations. The Examiner is respectfully requested to accept the amendment to claim 4. If however, in the Examiner's opinion this change raises new issues for examination and/or search after the Final Action, he is respectfully requested and authorized to cancel claim 4 without prejudice.

After carefully considering the Examiner's grounds for the rejection of the claims over the art, applicant amended claim 1 by introducing into it the features of claim 3 and also amended claim 8 by introducing into it the features of claim 9.

Claim 1 as amended specifically defines an ultrasonic flow sensor, comprising the following elements:

– at least one ultrasonic transducer for transmitting and receiving ultrasonic signals, and

– a receiver unit (4) connected to the ultrasonic transducer that detects a predetermined event (N) of the ultrasonic signal as a reception time (t_0),

wherein the receiver unit (4) determines a time (t_1) of a value characteristic of the ultrasonic signal as well as a time shift (Δt) of the time (t_1) relative to the reception time (t_0) and uses the time shift (Δt) to determine a correct time value for the reception time (t_0),

wherein the receiver unit (4) determines a chronological position (T_s) of a focal point of either the ultrasonic signal or its envelope curve (6) as the characteristic value.

Claim 7 defines a method for detection of an ultrasonic signal in an ultrasonic transducer:

by means of a receiver unit (4), which detects a predetermined event (N) of the ultrasonic signal as a reception time (t_0),

wherein the receiver unit (4) determines a time (t_1) of a value characteristic of the ultrasonic signal and determines a time shift (Δt) of the time (t_1) in relation to the reception time (t_0) and uses the time shift (Δt) to determine a correct time value for the reception time (t_0),

wherein the receiver unit (4) determines a chronological position of a focal point of the ultrasonic signal or its envelope curve (6) as a characteristic value.

Turning now to the references applied by the Examiner, and in particular to the Japanese patent application publication to Eshita, et al, it is respectfully submitted that this reference discloses a method and an apparatus for ultrasonic flow-velocity measurement, designed so that an arrival timing of ultrasonic waves for measuring a propagation time difference can be specified with full accuracy. This reference however does not disclose an ultrasonic flow sensor and method for detection of an ultrasonic signal in which the receiver unit determines a chronological position of a focal point of either the ultrasonic signal or its envelope curve as the characteristic value of the ultrasonic signal.

This reference therefore does not disclose the new features of the present invention which were defined in original claims 3 and 9 and are now defined in amended claims 1 and 7.

Another reference applied by the Examiner, namely Applicant Admitted Prior Art also does not teach the new features of the present invention.

The U.S. patent to Bolstrom discloses a method of indicating a time of an acoustic pulse and a device for carrying out the method. The patent to Bolstrom deals with measurements of a volume of a tank fluid by means of ultrasound. It relates to a totally different technical field and is not combinable with Applicant Admitted Prior Art as a matter of obviousness.

The Examiner rejected the original claims over the combination of Applicant Admitted Prior Art with the Eshita, et all reference and with the Bolstrom reference.

It is respectfully submitted that the references did not disclose any hint or suggestion for their combination, and it can not be considered as obvious to combine them.

As stated for example in ATD Corp. The Lydale, Inc. 48 USPQ 2d 1321, 1329 (Fed. Cir. 1999):

> "Determination of obviousness can not be based on the hindsight combination of components selectively culled from the prior art to feed the parameters of the patented invention. There must be a teaching or suggestion within the prior art within general knowledge of a person of ordinary skill in the field of the invention, to look to particular sources of the information, to select particular elements, and to combine them in the way they were combined by the inventor".

Definitely, there are no teachings or suggestion in the references to combine them to arrive at the new features of the present invention which provided proposed by the applicant and combined in the inventor manner.

In re Fritch, 23 USPQ 2d, 1780, 1784 (Fed. Cir. 1992) it was stated that

> It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious ..."one can not use inside reconstruction to pick and choice among isolated disclosures in the prior art to depreciate the claimed invention"

Definitely, the combination of the references applied by the Examiner can not be considered as obvious.

It is further respectfully stated that the present invention can not be derived from the combination of the references, since any combination would not lead to the applicant's invention. Instead, the references have to be modified, in particular by including into them the new features of the present invention which were first proposed by the applicants and now defined in amended claims 1 and 7.

However, it is known that in order to arrive at a claimed invention, by modifying the references cited art must itself contain a suggestion for such a modification. This principle has been consistently upheld by the U.S. Court of Customs and Patent Appeals which, for example, held in its decision in re Randol and Redford (165 USPQ 586) that

> Prior patents are references only for what they clearly disclose or suggest; it is not a proper use of a patent as a reference to modify its structure to one which prior art references do not suggest.

In view of the above presented remarks and amendments it is believed to be clear that claims 1 and 7, the broadest apparatus and method claims, should be considered as patentably distinguishing over the art and should be allowed.

As for the dependent claims, these claims depend on the corresponding independent claims, they share their allowable features, and they should be allowed as well.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance; he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,

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